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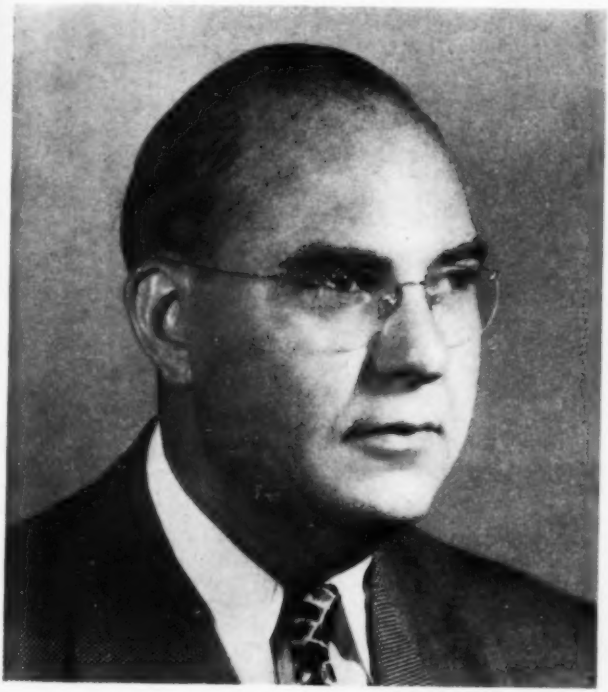

Chairman Los Angeles Chapter, A.I.C.

MANUEL TUBIS

Technical Director, American Bio-Chemical Corporation

Holiday Greetings

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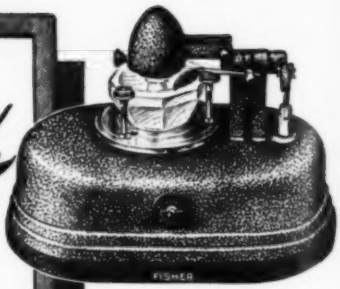

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The Chemist

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SCHEDULED FOR FUTURE ISSUES

"Rewards from Creative Work" by Marvin J. Udy, F.A.I.C.
"More About Registration of Chemists" by Dr. Foster D. Snell, F.A.I.C.
"How Members are Elected to the A.I.C." by J. M. McIlvain, F.A.I.C.
Vocational Guidance Conference—A Report.
Has the Chemists' Professional Status Improved?—A Survey.
Other material.

IN THIS ISSUE

Cover Picture

Manuel Tubis, chairman of the Los Angeles Chapter, A.I.C., is technical director of the American Bio-Chemical Corporation of Los Angeles. Transferred to the Los Angeles Chapter from the Pennsylvania Chapter in 1946, he was elected secretary that same year, and subsequently became chairman.

He was graduated from the Philadelphia College of Pharmacy and Science in 1931, and in 1932 was awarded the M.S. degree from the University of Pennsylvania. He returned again to continue studies in organic and physiological chemistry.

A diligent civil servant, Mr. Tubis was employed by the U. S. Food and Drug Administration from 1935 to 1944. Several publications show the diversity and application of his interests.

In 1944, Mr. Tubis became associated with Weyth, Inc., first as special analytical chemist, then in pharmaceutical research, and finally as chief chemist of the Reichel Division at Kimberton, Pa.

In 1946, due to the illness of his daughter, Mr. Tubis was forced to sever his many valued friendships and connections and became a disciple of Horace Greeley. By now he is convinced of the greatness of the West.

As a member of the A.I.C. and the American Chemical Society, he has followed keenly the professional program for chemists and he is sure that professional societies and licensure will achieve the desired status for chemists. He also belongs to the American Pharmaceutical Association and erstwhile member of the Association of Official Agricultural Chemists. He believes that chemists should extend themselves beyond the cloistered walls of their science and become active in their communities. As a practical demonstration, he now takes an active part in civic and religious affairs. The Southern California countryside affords ample opportunity for the exercise of his hobby of photography.

Professional Services

"I loved books, but I had very few of them. I received one book a year; it came as a Christmas present."

——Edgar Fahs Smith

(Quoted from Chymia.)

Dr. R. C. Newton accepting Honor Scroll of Chicago Chapter, A.I.C., from L. H. Flett, president, A.I.C.

The Chemist's Responsibility to Society

Dr. R. C. Newton, F.A.I.C.

Vice President, Swift and Company, Chicago, Illinois

Honor Scroll Acceptance Address at the meeting of the Chicago Chapter, A.I.C. held in Chicago, October 8, 1948.

THE chemist occupies a unique position among his fellowmen. The achievements of chemists in improving the conveniences of everyday living are so well known that people have come to expect extraordinary performance. Of course, what the public sees is the result of the practical application of chemistry. The average person without scientific training or close contact with some chemist has little conception of the laborious task of building up the background of basic information which is used in accom-

plishing the ultimate practical result.

In fact, the chemist often fails to connect the sequence of discoveries made by his predecessors, all of which formed the background and led logically up to the current application. We take so much for granted that we never stop to consider the contributions of predecessors which made our work possible. It would be next to impossible to write a complete history of any new discovery. Perhaps this thought was in the mind of the writer who said that every man owes a part of his time to the service of the profession in which he works. I believe the scientist has recognized this obligation as fully as any other group.

The recording and publication of proven facts by scientific workers have been so common that it has become an unwritten code of ethics. This spirit of service is one in which they can take just pride. When we consider the debt we owe to those who have preceded us, it is no wonder that we strive to pay that debt in kind, each adding our minute contribution to the record. Thus we recognize our responsibility of accumulating more facts about the world in which we live.

We live in a society built on knowledge which has accumulated through countless generations. This constitutes an inheritance which each of us has received from our ancestry back to the dawn of man. Such an inheritance imposes on us a responsibility to preserve and to pass this storehouse on to future generations. Man has invented and tried out many systems of cataloging this information. He has contrived and experimented with social systems that would make the best use of it and safeguard its passage to the future. Many mistakes have been made and the course of enlightenment has not always been forward. A true record of these mistakes forms a part of our store of knowledge. Each generation has tried its own experiments and each generation has made its own mistakes. The interpretation of these experiments requires an elapse of time to review them with proper perspective. The mistakes and successes of social organization in the 19th Century only become clear to us now and our work will be judged best by the future. It becomes the task of historians to search the record for the true interpretation.

Scientific Progress

Scientific and technological progress has been rapid in our generation and we, as scientists, are sometimes inclined to accept applause. We have no individual right to take credit for that which we inherited. We should be judged by the progress we have made with the tools handed to us by our scientific predecessors. Since the time of Alexander there has been a continuous line of scientific observers laying the foundation of facts which form the building materials for scientific progress. Furthermore, and of

greatest importance, we have inherited the experimental method and an atmosphere of freedom which have been the chief reasons for the rapid advance of science in our time.

The physical and biological sciences are clearly distinguished by use of the reproducible experiment. This invention of early science is our particular heritage as scientists. Because of this, we are able to check our work to determine the true and the false in comparatively short periods of time. We thus become, in a sense, our own historians, clarifying and interpreting the record with greater precision and greater speed.

There seems to be little doubt of the immediate progress in the physical sciences. It is in the field of the social sciences where the methods are more cumbersome and the tools for precise measurement are less adequate that we have cause to question the rate of progress. It is also in this field that embraces the relationship of man to man, and nation to nation, that we have greatest need for new developments if we are to continue our progress in the conquest of environment.

It is in this field with such problems as population control that seems now to be the barrier which hems us in. One illustration on this point will suffice. The life expectancy for people of this country has increased from forty-six years to sixty-seven years during this generation. If the application of science should bring the same increase to the life span of all the peoples of the world without comparable change in the birth rate, the principal cause of death would be starvation and the diet of those which survived would be so low as to limit the satisfaction of living. Thus a social problem looms as a barrier to the full fruit of the medical and other biological sciences. Of course, we may expect further technological developments to increase greatly the food supply but shortages there must be if the world population increases proportionately to the life span in the more advanced nations.

One in our position may well say that the responsibility is not ours. We are doing our share in the advancement of knowledge in the physical and biological sciences—let the social scientists hold up their end. I cannot agree with this position. We have had handed to us the tools for the progress we are making and if there is a barrier which threatens the future, it is our responsibility to adapt these methods and techniques, or invent new ones to solve effectively the problems that lie ahead. Our inheritance of the scientific approach and our very special privilege of having been trained in science places on us a responsibility which we cannot evade. Furthermore, the very speed with which we have changed the environment of the world has, in itself, created many of the social problems.

The Methods of Science

The science of mathematics which gave to the physical sciences their quantitative relationships has already afforded one of the most useful tools to the workers in the social sciences through its division of statistical analysis.

The biological sciences are seeking relationship between physiology and human behavior but this is only a beginning and the need is urgent for the application of more of these tools.

I have said that physical sciences are distinguished by their use of the reproducible experiment. Just so is the true scientist characterized by his ability to observe facts and weigh evidence. This is the training that makes a scientist, when imposed on a character which places the truth above all else. How many scientists do you know who follow these principles rigidly in their field, but outside their field revert to the level of the human species and are swayed by emotion based on tradition and childhood superstitions?

The scientist must learn to carry the method into all his activities and not to desert it when he leaves his field of specialized research. It is his greatest inheritance and he owes a responsibility to teach it to the world. This is a big order and will take a long time. But a full appreciation of this responsibility by those who have had the privilege of scientific training is the only way to begin.

When we consider the ease with which public opinion is swayed by demagogues expounding the most fantastic ideas with half-truths and innuendos, we can visualize the complexity of the problem of building an ideal social organization. It explains the periodic retrogression which history shows as the path of civilization. It marks a cogent reason for the setbacks which man has encountered in his forward march. There are many psychological factors that are not completely understood but faulty thinking by the masses which constitute public opinion must be credited as an underlying defect. Failure to consider and weigh the facts in arriving at a true relationship of cause —effect is a fault common to all humanity which can be overcome only by education.

Freedom is No Half-Measure

There has been much talk about the possible loss of freedom in scientific work as if this were a special kind of freedom which might be preserved while all other freedom is allowed to slip through our fingers. I am in complete agreement that science can not flourish without freedom, but I hold also that freedom is no half-measure. It cannot be relinquished in one phase of life and be maintained in another. The scientist should look well to the safeguarding of these principles in the political, economic, and social phases of life, if he would

maintain them in the intellectual sphere.

Scientists have had an important part in building America. But, as scientists we should not lose sight of the basic foundations of our American system of competitive enterprise. If we are not free to choose the way we earn our living, or how we spend our earnings, we have no other freedom.

One reason for our industrial advancement is the powerful incentive of reward, which may take the form of financial profits, royalty, personal advancement, etc. This incentive accounts for new inventions, new products, and new processes. It provides the urge of people to invest their savings which provide the capital for industrial progress. It is the social experiment of our age and we challenge the historians to compare it with any other system.

The success of this system has provided the funds to speed up research. Its competitive nature has provided the impetus and the incentive for a constant search for better products, better processes at low cost.

If people everywhere had all the facts about this system and could be made to depend on reason rather than on the emotions, there would be little chance of their being swayed by radical propaganda or short-sighted selfish interests.

The Responsibility of Scientists

Straight thinking, based on facts and indulged in most of the time by a relatively large portion of the people is the long-range problem of civilization. It is the method of science and it is a responsibility of scientists to teach the method as well as to practice it.

Sampling of public opinion has developed into a science of considerable accuracy and it is applied to consumer preference of manufactured articles as well as political questions. It is my opinion that this promises revolutionary changes in advertising procedure and techniques. If this prediction is even approximately correct, it represents an important advance in one of the great social problems—that of adult education.

It seems to me that a closer relationship with advertising people offers an opportunity which the scientist should eagerly grasp.

In this alliance, the scientist could check and re-check the facts that are put before the public. The public should be taught to demand evidence because without evidence so-called "facts" are mere opinions subject to distortion by false prophets.

There are many other avenues through which this process of education should be rigorously pursued. My point is that the scientist has a solution to many of the social ills of the world if he can teach his method to enough people. It is a long process but no other method offers equal possibilities.

May I summarize by saying that

the scientist carries a heavy responsibility by virtue of his inheritance and training:

First, to accumulate new truths.

Second, to carry his scientific methods into all his activities.

Third, to teach the public to demand evidence and use the scientific method of thinking.

Vanderkleed Forms Consulting Service

Dr. Charles E. Vanderkleed, F.A.I.C., retired October first as vice president and scientific director of McNeil Laboratories, Inc., Philadelphia. Simultaneously he announced the formation of a pharmaceutical and chemical consulting service at 200 Harvard Avenue, Collingswood, N.J. The newly formed organization will provide specialized service on problems of labeling, manufacturing, and control. In addition to his new activities, Dr. Vanderkleed has been appointed to the staff of the Philadelphia College of Pharmacy and Science.

Dr. Vanderkleed joined McNeil Laboratories twenty-eight years ago. Before then he was chief chemist for the H. K. Mulford Company, Philadelphia, for fifteen years. He is active in the work of the Combined Contact Committee of the American Drug Manufacturers' Association and the American Pharmaceutical Manufacturers' Association. On January 29th, he was awarded the Procter Medal by the Philadelphia Drug Exchange "for distinguished services in the pharmaceutic arts and sciences and as educator, author, technician, advisor, and researcher."

Cheyney to Pollock Paper

Dr. L. E. Cheyney, F.A.I.C., is now research director of the Pollock Paper Corporation. He is located at the corporation's subsidiary, Waterproof-Ohio Paper Company, Middletown, Ohio. Dr. Cheyney was formerly assistant supervisor of resin and rubber research, Battelle Memorial Institute, Columbus, Ohio.

Sample to Bryn Mawr Hospital

Albert B. Sample, F.A.I.C., is now biochemist with the Laboratory of Clinical Pathology and the John S. Sharpe Research Foundation of the Bryn Mawr Hospital, Bryn Mawr, Pa. He was formerly head of the research analytical section of Smith, Kline and French Laboratories, Philadelphia, Pa.

Golden Anniversary

The Chemist's Club of New York will celebrate its fiftieth anniversary this year. Dr. Marston T. Bogert, F.A.I.C., is honorary chairman of the committee in charge of the celebration. Other members of the committee include H. B. Lowe, chairman, D. D. Berolzheimer, Dr. W. P. Cohoe, F.A.I.C., and H. B. McClure, F.A.I.C.

Roy Chester Newton—The Chemist

Carl S. Miner

Miner Laboratories, Chicago, Ill.

IMMEDIATELY after receiving the Ph.D. degree from the University of Chicago, in 1924, Roy Newton went to work in the research laboratories of Swift and Company. During those early days his activities were concerned with the field of fats and oils, especially with studies of emulsions and development of emulsification processes. His researches ripened into basic patents on certain features of Mayonnaise and salad dressing manufacture and laid the groundwork for his company's entrance into that field.

His study of the supercooling of fats led to important developments, culminating in the use of a new type chilling machine applicable to the field of lard and shortening manufacture and later to the solidification of margarine emulsions. Messrs. Bollens and Brown were collaborators with him in this work which resulted in basic patents.

In collaboration with Dr. Grettie, Dr. Newton developed the first commercially successful anti-oxidant for lard. The use of gum guaiac made possible the first bland type shortening made from lard without hydrogenation. This development proved to be of great value to agriculture because of the widened market for lard resulting from the increased stability of the product against rancidity without loss of the valuable properties inherent to lard.

Newton and collaborators also did much valuable early work on the utilization and commercial manufacture of the mono-and diglycerides, a field which has expanded enormously in recent years.

It is in these fields that most of Newton's many patents have been issued. He insists that I add that, in almost every case, someone of his associates filled an important role as co-inventor.

In 1932, he was made chief chemist of Swift and Company, and under his inspiring leadership the research department made rapid progress in demonstrating the tremendous value of the scientific method as applied to the meat packing industry. As a result, the Company's research facilities and personnel expanded steadily, even through depression years. In 1932 there were in the department just four men besides Newton who had Ph.D. degrees. Today there are thirty, and the total staff has increased three-fold under his leadership.

It was natural and inevitable that

this successful development of the research division of the company should be recognized by the elevation of the research leader to an important executive position, so in 1941, Dr. Newton was made a vice president. In connection with that event, Mr. Charles Swift said, "We have long sought a scientist who has great executive ability. In Dr. Newton we have the ideal combination."

Obviously his work as a research chemist and executive would entitle him professionally to the highest rank, but it is, in the opinion of many of his colleagues, more than equaled in importance by what he has done for the chemical profession and for science and scientists in general by his non-company (extra-curricular) activities.

Many of us think first of the National Chemical Exposition as his most important achievement. In the case of such an important matter, we would usually speak of the Founding Fathers. No one will feel that undue credit is given when we refer to Dr. Newton as the Founding Father of the Exposition.

We know of his many important services to the American Chemical Society and to the Chicago Section, but of his wide-spread activities in behalf of science and scientists, I for one had no adequate conception.

We know in general of Swift and Company's Grants-in-Aid to science, but do all of us know that they have amounted to nearly a million dollars and have been given without regard to direct results to the company?

Newton was among those first consulted in connection with the founding of the Industrial Research Institute and he helped to build its firm foundation.

He was one of the most important members of the group that was responsible for the development of the Institute of Food Technologists, and he is a past national president of that society.

He is a member of the Board of Trustees of the George Washington Carver Foundation and he is active in that capacity.

He is one of the two industrial members of the Food and Nutrition Board of the National Research Council, where he helps to give a practical slant to their deliberations and decisions.

He has always been greatly interested in the problems of scientific publications, and so it is natural that he should be a member of the Board of Trustees of *Biological Abstracts*, as well as an associate editor of *Chemical Reviews*.

He is a national councilor of the Ohio State University Research Foundation, and to cap the climax, he is chairman of the N.R.C. Committee on Veterinary Services for farm animals.

Though I have recounted enough

activities for any man's lifetime, Newton's professional colleagues rate as most important from their standpoint his readiness and ability to act as an unofficial adviser on every important chemical activity in the Chicago area. No one can mention an important decision with regard to the profession of chemistry here that has been made without Newton's opinion having been asked and freely and helpfully given.

This amazing total of contribution to the chemical profession and to science makes it wholly fitting that Roy Chester Newton should be honored by THE AMERICAN INSTITUTE OF CHEMISTS, which so definitely is devoted to forwarding the interests of the chemist as an individual.

Golden Anniversary

Goodyear Tire and Rubber Company is celebrating its fiftieth anniversary in Akron, Ohio. A three-day program began October sixth. Among other features was the special motion picture, "A Letter from America," which is available for showing in all parts of the world.

Chemistry Alumni Dinner

The Annual Dinner of the City College Chemistry Alumni Association, New York, N. Y., will be held December 27th at the Hotel New Yorker, N. Y. Dr. Frank Brescia, A.A.I.C. is in charge of reservations.

Sorvall Calculators Refinished

Ivan Sorvall, Inc., 210 Fifth Avenue, New York 10, New York, announces that its Original-Odhner handy calculating machines are now coated with a grey-bluish crackle finish, which tests show are easier on the eyes than shiny finishes. These calculators feature a back transfer device, which does away with intermediate settings, and thus speeds up such operations as long multiplications.

Shaw Research Laboratories

Dr. William I. Shaw, F.A.I.C., formerly technical advisor to the Santa Fe Company, New Jersey, and director of the consulting firm of Shaw and Hamm, New York, New York, has formed his own consulting business under the firm name of Shaw Research Laboratories. He specializes in the food, cosmetic, and chemical specialties processing industries, and offers his services in research, new products development, correcting of processing difficulties, etc. His offices are at 509 Fifth Avenue, New York.

Symposium on Spectroscopy

The Society for Applied Spectroscopy announces a "Symposium on Spectroscopy" to be held January 4, 1949, at the Lecture-Hall, Old World Building, 65 Park Row, New York, N. Y. at 8:00 p.m. Speakers will be Dr. Colon of Merck and Company, "Spectrophotometric Determination of Benzyl Penicillin;" Mr. Wiley of National Lead Company Laboratories, "A Vibration Isolation Mounting;" Mr. North of Titanium Pigment Laboratories, "The Addition of Silver Salts for Intensifying Impurities in Titanium Spectra;" and Mr. Van Dien, consulting engineer, "The Fluorine Band Spectra."

Remington Honor Medal-1948

The New York and Baltimore Branches of the American Pharmaceutical Association met, November 18th, at the University of Maryland, in memory of the late Dr. Andrew G. DuMez, F.A.I.C., for the posthumous presentation to him of the 1948 Remington Honor Medal, awarded shortly before his death on September 27th. Speakers were Dr. Harry C. Byrd, president, University of Maryland; Dr. Edward C. Elliott, director, Pharmaceutical Survey; Dr. Ernest Little, president, American Pharmaceutical Association, and Dr. Robert L. Swain, honorary president, Maryland Board of Pharmacy.

Award to Charles L. Parsons

—*Chemical & Engineering News*

Dr. Charles L. Parsons accepting A.I.C. Honorary Membership from L. H. Flett, president, A.I.C.

DR. CHARLES LATHROP PARSONS, secretary of The American Chemical Society from 1907 to 1945, was presented with Honorary Membership in THE AMERICAN INSTITUTE OF CHEMISTS, October 20th, at a dinner meeting, in the Downtown Athletic Club, New York, N. Y., of the New York Chapter, A.I.C., the New York Section of the American Chemical Society and the American Section, Society of Chemical Industry.

Dr. Martin Meyer, chairman of the New York Chapter, A.I.C., serving as toastmaster, stated, "In this era which continuously presents, for each of us, so many and such pressing personal problems, it is more than remarkable when a man is able to make important, altruistic, and completely unselfish contributions to society. Dr. Parsons has generously given much of his life to precisely that purpose. In honoring him, this society honors itself, for it is thereby only recognizing the ideals it is pledged to serve."

Dr. Clifford F. Rassweiler, F.A.I.C., chairman of the New York

Section of the American Chemical Society, extended greetings to Dr. Parsons on behalf of the participating groups: " . . . It gives us pleasure, everyone of us, by our presence to show our respect and our appreciation of Dr. Parsons as a man and for what he has done for our profession."

Dr. Parsons' several careers as educator, chemist, and A.C.S. secretary, were discussed by Dr. Walter J. Murphy, F.A.I.C., and Dr. Donald B. Keyes, F.A.I.C. (See articles which follow.)

The presentation of the certificate of Honorary Membership to Dr. Parsons was made by Lawrence H. Flett, president, A.I.C., who told the two-hundred assembled guests: "It is a particularly happy occasion for me to have the opportunity to present to Dr. Parsons this certificate which entitles him to be known as an 'Honorary Member of THE AMERICAN INSTITUTE OF CHEMISTS.'

"Chemists shudder at superlatives, but it must be recognized that Dr. Parsons has built up the greatest technical society the world has ever seen. This society made possible the greatest technical publications that the world has ever seen. He has been helped in this work by members of the American Chemical Society, but from the start he has provided that leadership which the members of the Society were glad to follow.

"Although his friends affectionately know him as 'Charlie,' his accomplishments have made him one of the great chemists of our time. The profession of chemistry is indeed indebted to him.

"THE AMERICAN INSTITUTE OF CHEMISTS awards Honorary Membership to Charles Lathrop Parsons in recognition of his services to the profession of chemistry and of his contribution to American science. His tireless efforts have won for him the deep affection and esteem of American chemists."

Dr. Parsons then graciously acknowledged the presentation of the certificate:

"I naturally am rather overcome. No man could sit and hear the fine things said about him tonight without feeling overcome. I will admit there is nothing in this world to compare with the feeling which comes from possible accomplishments, and though not for a minute can you make me believe that I have accomplished all that has been said about me, nevertheless, I have enjoyed it. One could not feel otherwise.

"I have had a full life but it has been a life of pleasure. I have dealt with the finest group of men that exists in America or in any other country. Chemists, because of their training, seek always the truth, and one can always deal with them on a plane above that of ordinary humanity. To me chemists are the finest

group of people living. If I have done anything to help make their lives more successful, to bring them together to work together, I am a hundred times repaid.

"I certainly thank you very much indeed for this certificate of Honorary Membership. I appreciate it highly. It is a great privilege to be here at this banquet and to receive these tributes which nobody on earth can make me believe I deserve."

Parsons—Educator, Chemist, A.C.S. Secretary

Dr. Walter J. Murphy, F.A.I.C.

Editor, Chemical and Engineering News

WHEN Dr. Parsons retired at the end of 1945, after thirty-nine years of unselfish service to the American Chemical Society and to the profession of chemistry, the late C. A. Browne said, "Over ninety-nine per cent of the members of our Society have known no other secretary." The extraordinary growth of our Society might well be described as a youth movement. Younger members of our Society are unaware of the fact that the man it is our privilege to honor has had four careers, any one of which would stamp him as one of the most distinguished members of the chemical profession.

For twenty years he was a successful teacher. In 1888 he became instructor at the New Hampshire College of Agriculture and Mechanical Arts, an institution at that time associated with Dartmouth College. Ultimately the New Hampshire College became the University of New Hampshire, and Professor Parsons became head of the chemistry department.

Dr. Parsons was a successful teacher, but his fame as both a teacher and as a chemist has been overshadowed by his success as secretary of the American Chemical Society. However, the pages of our scientific journals and the archives of the Patent Office eloquently testify to the versatility of Dr. Parsons' ability as a research chemist. He received the Nichols Medal in 1904 for his classical work on the atomic weight of beryllium. His monograph on the chemistry of that element, published in 1908, is one of the classics of precise, accurate scientific writing. He was noted as an authority on mineralogy and blowpipe analysis. Later when he became associated with the U. S. Bureau of Mines, he was recognized as one of the world's foremost authorities on radium and radioactive substances.

When the first World War found

this country without a single plant for the fixation of nitrogen, Dr. Parsons was picked as one of a select group of scientists to develop a nitrogen fixation program. During this period he became a confidant of Secretary of War Baker and Secretary of the Interior Lane, friendships which continued long after the emergency had passed.

My principal assignment is to discuss Dr. Parsons' contributions to the American Chemical Society. With a membership today of 59,000, an annual budget of more than two and one-half million dollars, and the five Society-owned and edited publications, recognized internationally as the leaders in their respective fields, it is difficult to visualize the relatively insignificant position of the Society in 1907.

Dr. Parsons was still professor of chemistry at New Hampshire when he joined the American Chemical Society at the Chicago Exposition meeting of August 21, 1893. The attendance at that meeting totaled 182 chemists, of which only 83 actually were Society members. The records of that meeting do not show whether the 99 non-members paid a higher registration fee than members, but if they did not, I am certain that our good friend made a mental note of this inconsistency. From its inception in 1876 to this memorable meeting of 1893, the American Chemical Society had led a rather precarious existence. It was looked upon by many with grave suspicion and few of the profession's leaders felt that the Society's future was secure enough to warrant lending support of their names. At this meeting, however, four of its future presidents became members: C. H. Herty, W. A. Noyes, C. L. Reese, and Alexander Smith. They and Dr. Parsons were destined to play important roles. The latter devoted a large part of his life to the Society. He steadfastly refused to be nominated for the presidency, or to accept honorary membership. It was not honors nor monetary gain that Dr. Parsons sought, but the success of the organization to which he has given unceasingly of his time, labor and demonstrated abilities.

Dr. Parsons as Secretary

When Dr. Parsons became secretary in 1907, the Society was thirty-one years old and the membership roll contained the names of 3,300 members. Its annual budget for that year amounted to $30,200. What a contrast to today's membership and the financial figures presented annually to the Board of Directors for approval!

A large membership and an almost breath-taking annual budget do not in themselves reflect the success of an organization. They are definite indications, however, that the services that the American Chemical Society performs for the chemical profession

are noteworthy, valuable and, in many respects, indispensable.

Dr. Parsons would be the first one to say in his characteristic emphatic manner that he alone is not responsible for the phenomenal growth and the national and international importance, prestige, and influence of the American Chemical Society and its publications. Many have contributed to the success of the society, but during the thirty-nine years of Dr. Parson's active service, he has been its acknowledged leader. The inspiring leadership of Dr. Parsons is the principal reason why the Society today is next to the largest scientific and professional organization in the world, second only in size to the American Medical Association. Leadership does not always lead to popularity and, at times, causes disagreements, but without leadership organizations do not grow, do not succeed, do not perform the services for its members that have characterized the history of our Society.

Dr. Parsons once commented on the policy which he adopted and pursued during his long years of service. He said, "This policy has not tended to increase my popularity, but it has prevented the Society from actions that would have weakened, possibly even destroyed it." Describing that policy, Dr. Parsons continued, "When new ideas are proposed, unless it is immediately obvious that they are desirable, I appeared to oppose them. This forced the proponents to demonstrate conclusively the value of their new ideas, with the result that we have usually adopted sound proposals, but have avoided pitfalls of half-baked and unsound ideas. Such a policy," said Dr. Parsons, "Has not increased my popularity, but I have never sought popularity. I am genuinely interested only in the sound growth of the Society."

Dr. Parson's leadership has always been characterized by the avoidance of personal issues and a stand on any question was understood even by his opponents to be on a purely impersonal basis. In the course of thirty-nine years as secretary and business manager of the American Chemical Society, Dr. Parsons has disagreed with many individuals, but I do not believe that his most bitter opponent would question Dr. Parsons' sincerity and his overall sound judgment and intimate knowledge of the American Chemical Society.

Leadership does always mean popularity, nor does popularity always denote leadership. Successful leadership, however, commands respect and that is what Dr. Parsons has attained in his unique service to the profession in building the American Chemical Society to its present position. Associated with that deep respect is universal acclaim for his contributions to the Society.

The Choice

Dr. Parsons, when you accepted the secretaryship of the American Chemical Society you were forty-four years of age. You were a successful teacher and a famous molder of character. When you honored me by asking me to come to Washington, I was approximately the same age that you were when you accepted the responsibilities of secretary. I know from personal experience what thoughts must have occurred to you as you sat in your home in Durham and deliberated with Mrs. Parsons whether to accept or reject this challenging offer. While it was not my good fortune to know Mrs. Parsons, from many things you have told me, and from the statements of many chemists who knew both of you, I can well imagine Mrs. Parsons concluding the discussion by saying, "Charlie, it is your duty to accept."

You gave up the pleasant surroundings of Durham, the teaching profession, your lovely home and personal associations, in 1911, to move to Washington because it had become clearly evident that the continued growth of the Society required your residence at the nation's capital. Again when it became evident that the future growth of the Society required your full time, you did not hesitate to sacrifice your career at the Bureau of Mines, although this act detached you from active research.

It would be extremely difficult to enumerate in detail the individual contributions that you have made to the advancement of the American Chemical Society. No other country in the world has succeeded in establishing an overall chemical society, embracing all of the heterogeneous activities of modern chemistry, that can be compared to the ACS. In the few countries where such attempts were made they usually proved futile and the profession is represented not by one society but by many groups with confusion and duplication of effort. Attempts have been made in many countries to emulate the example of the American Chemical Society, which serves as an umbrella for all chemists and chemical engineers. Only in one or two countries have such attempts succeeded and generally the profession is hopelessly divided, disorganized, and inadequately represented. The answer is simple—they do not have the counterpart of Dr. Parsons.

Progress

The phenomenal progress of the ACS has not been achieved without many trials, tribulations, and compromises. Perhaps the most significant move ever undertaken within the framework of the Society was the establishment of our scientific divisions. Without this development it is very likely that the Society would have disintegrated shortly after the turn of the present century. Many minds combined to bring about the establish-

ment of our present system of divisional activity. Albert Noyes suggested just such a possibility. William Hildebrand in his presidential address of 1907 pointed out that such divisions were inevitable and that the announcement of their establishment would be a most effective means of increasing the Society's membership and maintaining its solidarity. Under the presidency of Marston T. Bogert, one of the closest friends that Dr. Parsons has had in his long career as secretary, the new plan was finally established.

Again when it became evident that an industrial journal was necessary to maintain the interest of industrial chemists in the Society and to attract others to its fold, we find the secretary of the Society active in the plans for the establishment of *Industrial and Engineering Chemistry*. When an Analytical edition of *Industrial and Engineering Chemistry* was indicated, Dr. Parsons stood ready and willing to throw his influence and authority toward what then seemed to be unwarranted expansion of the Society's publication program. The introduction of the *News Edition* in 1926 likewise received his complete blessing. Similarly he sensed the need and potential value of the ACS News Service. When these two activities were proposed, they received his enthusiastic support.

Turning to modern history, Dr. Parsons gave his endorsement to the establishment of *Chemical and Engineering News* as a weekly and the separation of the two editions of *Industrial and Engineering Chemistry* into separate journals, *Analytical Chemistry* and *Industrial and Engineering Chemistry*.

Dr. Parsons' respect for and devotion to the *Journal of the American Chemical Society* and *Chemical Abstracts* is well known. Dr. Parsons has remarked that the principal binder that holds the Society together is *Chemical Abstracts*, a service to the profession of chemistry which has gained international recognition not only in chemistry but in all fields of physical sciences.

Frankly, these publications are what they are today because of the business acumen of Charles Lathrop Parsons. Without the business ability that he has displayed, it is questionable whether the Society's publication program would have succeeded. It takes subscribers, a large income, and a sound editorial program to create such publications. Dr. Parsons helped in all three.

When Dr. Parsons approached me with the news that the directors of the American Chemical Society would like me to succeed the late Harrison E. Howe, I frankly told him that I was not at all certain that we could work in harmony. I pointed out that if I were to achieve practical results in Washington, it was essential that he and I understand each other and

operate as a team. Dr. Parsons was eager to point out that if I came to Washington, I came not as an employee of the secretary but reporting directly to the Board of Directors of the Society. He was emphatic in stating that he would be glad to cooperate with me whenever I sought his advice and assistance, but the responsibility of the three publications and the ACS News Service, the principle medium of publicity for the Society, the profession and the industry, were mine, subject only to the sustained approval of the directors.

In the few years, that I was actively associated with Dr. Parsons, never once did he repudiate the promise which he gave me on New Year's Eve, 1942. I sought eagerly his opinions, advice and assistance. I have always felt that any expression of opinion of Dr. Parsons represented an objective viewpoint. I have not always agreed with him or he with me, but we continued to seek each other's opinions at all times. It was a most satisfactory *modus operandi.*

Secret of Success

I have had perhaps a more varied experience since I was graduated from the Polytechnic Institute of Brooklyn in 1921 than is given to many individuals. I have come in contact with a wide variety of people. I say without reservation that Dr. Parsons is endowed with a trait possessed by few, even scientists who are schooled in the importance of arriving at conclusions entirely divorced from emotional considerations. Here is the innermost secret of Dr. Parsons' success:

To each and every problem which has confronted the American Chemical Society and its publications, he has asked himself some very simple questions. (1) Is the proposal sound? (2) Is it in the best interests of the American Chemical Society? (3) Is it in the best interests of the chemical profession and the chemical industry of which we are an irreplaceable segment? These are simple questions and when they are propounded abstractly, it would seem that forthright answers should be secured, yet human nature is such that only relatively few men are endowed with sufficient integrity, farsightedness, and absolute objectivity to be entrusted with the responsibilities of major decisions affecting the interests of a large group of people with many heterogeneous aspirations.

One of the most outstanding characteristics of Dr. Parsons is courage, the courage of his convictions which never permits him to remain silent when controversial questions are discussed. We may occasionally disagree with him, but we are never in doubt as to where he stands on any questions. The reasons for his position on controversial subjects are always clearly enunciated. His statements on such questions as Selective Service administration left no doubt in the minds of his readers, listeners.

and opponents as to where he stood. He has never hesitated to attack proposals that he believed were inimical to the chemical profession. Very few of his intimates know that his advice was frequently sought by governmental agencies of one kind or another on scientific problems and questions of concern to the chemical profession. He has shunned personal publicity, sometimes to a degree that I believe has been unfair to his own reputation. This attitude of mind is indicative of his personal modesty and his earnest desire to create teamwork within the American Chemical Society.

A few years ago he and an individual who will remain nameless were in rather violent disagreement. It so happened that this individual was afforded the opportunity of spending a few days with the employees of the secretary. At the end of this experience, this individual remarked, "Never before have I seen such loyalty, such respect, indeed, such reverence displayed by employees for their employer. Any man who commands this sort of respect, commands mine also." From that day on, this nameless individual and Dr. Parsons have been close friends and collaborators.

Dr. Parsons as a teacher, as a chemist, and as secretary of our Society, has been an outstanding success. I would be remiss in my duty and I would forego great personal satisfaction, if I failed to mention one other field in which he has achieved notable success, as a husband, a father, a grandfather, and a great grandfather. The thin veneer of aloofness, which we thought frequently was a shell of armor, and the absolute objectivity of thought which appears to be so characteristic of Dr. Parsons when dealing with Society affairs were quickly dispersed in the environment of his home. Mrs. Parsons was a constant companion and participated in his joys, sorrows, and successes. Frequently he sought her advice. Theirs was a most fruitful and happy life together. From this union came five children, eight grandchildren, and eight great grandchildren. The financial reserves which Dr. Parsons has so assiduously built for the American Chemical Society is matched by the progeny that has resulted from the run-away marriage with Alice Robertson, when our hero was but twenty years of age.

Dr. Parsons demonstrated at a very early age an ability to evaluate character!

Many honors have been bestowed on Dr. Parsons; foreign governments have decorated him; in 1932, he was awarded the Priestley Medal of the American Chemical Society. At the Spring Meeting of the American Chemical Society in 1946, he received a special gold medal of honor from the Society in recognition of his services to the Society and to the chemical pro-

fession. He has received honorary degrees from the University of Maine, the University of Pittsburgh, and the University of New Hampshire.

Influence on the Future

Dr. Parsons, as you reflect on the growth of the American Chemical Society, the chemical profession, and American chemical industry, you must derive a deep sense of satisfaction, for no man has played a more important role in the expansion of these several activities. You have trained an able successor so that you can be assured that the living monument you have created will continue to serve the science of chemistry, the chemical profession, and the great chemical industry that has grown to such gigantic proportions.

It is not an uncommon occurrence for me to observe members of the Board of Directors of our Society, when assembled in the Board room in Washington, gazing at the oil painting of you when they are perplexed and seek inspiration. Your influence will be felt for generations to come. Yours has been a full life, a life of service, a life of sacrifice. You truly represent a professional chemist and this, Sir, is the reason why we are gathered here to honor you.

I have long hoped for the opportunity to express publicly my deep appreciation to you for the confidence that you indicated when you undertook the responsibility of recommending me to the Board of Directors as the successor of your personal friend and associate of long standing, Harrison E. Howe, I frequently think of our six weeks of negotiation and of my frank admission of doubt that we could work in harmony for the betterment of the chemical profession. I frequently recall, very humbly, the remark passed by Mrs. Murphy when she met you for the first time at the Perkin Medal Dinner in 1943. Her remark was a very simple query: "What makes you think that you and Dr. Parsons could not get along?" Women's intuition is a wonderful thing. The years that I was actively associated with you are among the happiest of my life.

I feel especially gratified to see THE AMERICAN INSTITUTE OF CHEMISTS honor you. It is a great tribute to you, but still a greater tribute to the INSTITUTE. The foundations upon which we are building the chemical profession are of such solid proportion, largely as a result of your personal efforts, that we in full confidence can erect a structure of unlimited heights.

To turn from inanimate objects, stone and steel, to something more akin to life itself. Today we are harvesting the lucious, wholesome, nourishing grapes in the vineyard planted by you long ago on what appeared then to be barren soil. Now the vineyard is established and its fruit will be harvested by this and

—*Chemical & Engineering News*

Dr. Walter J. Murphy, speaker; Dr. Donald B. Keyes, speaker, and Dr. Martin Meyer, toastmaster, at Award to Dr. Parsons.

future generations. I recall the parable of the laborers in the vineyard.

You, Sir, unlike those who murmered against the householder, have rejoiced in the good fortune of those who have benefited from your labors during the heat of the day.

Goethe, the great German poet, philosopher and scientist, once said:

"The most happy man is he who knows how to bring into relations the end and the beginning of his life." I close with a quotation from Longfellow:

"Oh what a glory doth this world put on for him who with a fervent heart goes forth under the bright and glorious sky, and looks on duties well performed, and days well spent."

Dr. John R. Skeen, F.A.I.C., market research director for Foster D. Snell, Inc., New York, N. Y. spoke before the New York Professional Chapter of Alpha Chi Sigma, November third, on unusual practices in the chemical industry which are designed to extend markets.

Flett Made Honorary Member

President Lawrence H. Flett has been elected an Honorary Member of The Chemical, Metallurgical & Mining Society of South Africa, Inc., Kelvin House, Johannesburg, Transvaal, for the Society's fiscal year ending June 30, 1949.

Charles L. Parsons as I Know Him

Dr. D. B. Keyes, F.A.I.C.

Vice President, Heyden Chemical Corporation, New York, N.Y.

(Address given on the occasion of the presentation of Honorary A.I.C. Membership to Dr. Parsons.)

IT has been said, repeatedly and truthfully, that the American Chemical Society owes more to Charles L. Parsons than to any other chemist, for Charles L. Parsons has shown the world how such a science as chemistry can be organized, not for the direct benefit of chemists only, but for the indirect benefit of us all. Charles L. Parsons has directly influenced the lives and actions of literally thousands. This he has done chiefly by direct contact with individuals.

His influence has and always will be connected with a great cause. It has been said that those who suffer in great causes receive great but intangible rewards. Never once has Dr. Parsons, to my knowledge, battled for inconsequential matters. He reserves his strength for the important conflicts and worthwhile issues.

His professional career started in 1888, when he obtained the Bachelor's degree from Cornell University and became chemist at the New Hampshire Agricultural Experiment Station. A year later he became instructor at New Hampshire College, now the University of New Hampshire, then situated on the campus of Dartmouth College in Hanover, New Hampshire.

You will recall that Dartmouth College was endowed and organized to bring knowledge to the "aborigines," a task which they have performed very satisfactorily over the years. Imagine the arrival of Charles L. Parsons, the young instructor with his dynamic personality and his ability to influence people, even as a youth, and imagine the effect of his presence in Hanover on the administrations of both colleges.

History does not record what actually happened. But progress must have been made, and lethargy on the part of those administrations reduced to the minimum. In four short years New Hampshire College acquired a new campus in Durham, N. H., and moved there forthwith. You can almost hear, fifty-six years later, the sigh of relief on the part of certain unprogressive administrators of Dartmouth College when our friend and his college moved away.

You can easily understand what

happened on the new campus in Durham between 1892 and the year of 1911 when Dr. Parsons left for Washington to become chief chemist and chief of the Division of Mineral Technology, U.S. Bureau of Mines. History records that the growth of New Hampshire College during the period when Dr. Parsons was there was simply enormous. From personal knowledge, I believe that at the end of this period, New Hampshire College had a faculty that in average quality exceeded any educational institution with which I have been familiar. Its greatest faculty member, in my opinion was Charles L. Parsons. He was not only instrumental in bringing such famous men, as Dr. Charles James, to the campus in the Chemistry Department, but he was instrumental in bringing others who later became distinguished in the numerous departments of the college. In those days it was not a question of keeping up with the Joneses; it was a question of trying to keep somewhere near the pace set by Charles L. Parsons. Never has a faculty member, to my knowledge, done more to stimulate interest in research and real pedagogy inside and outside of his own field than he did in those old days in Durham.

Dr. Parsons as Teacher

When I first met Dr. Parsons in 1909, he had already had twenty years of experience as a teacher of chemistry. I remember him very clearly as a teacher, researcher, and as a personal advisor. In the fall of 1909, as a freshman, I was told most emphatically by Dr. Parsons that the main objective of a freshman at New Hampshire College was to attempt to do so well in comparison to his colleagues that he could become one of a class of six, starting in his sophomore year, in that holy of holies, the chemical engineering curriculum. I had come with the preconceived notion that I would make my life's work in electrical engineering. It was at a time when the radio or, as it was known then, the "wireless telegraph" was in its infancy, and many boys were intensely interested in the subject of applied electricity. Under the careful, but emphatic, tutelage of Dr. Parsons, I soon got over that notion. I was goaded into the race because he told me that there was some question about my mental capacity or intellectual ability. Of course, he may have had some hidden notion that I might make the grade and become one of the chosen six, but openly he was very pessimistic as to the issue. I have since gathered the impression that Dr. Parsons worked on quite a few young men in this way, but fortunately for me, I was successful.

After I had been ordained a member of this select group, I investigated the reasons for confining the group to six in the sophomore, junior and senior years, as there seemed to be adequate

laboratory space for a much greater number. I found to my delight that Dr. Parsons had apparently appeared before the New Hampshire Legislature and influenced them to the extent that they had enacted a law which permitted only this number in our laboratories because each man required so many square feet of laboratory space. The Legislature probably was not informed that laboratory floor space in the major laboratories was used for only a few hours a day, and far less in the evening. This was long before World War II and its speed-up programs requiring effective use of a laboratory most of the day and part of the evening. Dr. Parsons apparently thought that with his limited staff, which consisted of four professors at that time, he could do much better from an educational standpoint with a few students than he could with many. The years rolled by, but his attitude still has real merit. He was not interested in educating the masses at Durham; he was interested in turning out the best product with the facilities at hand. Would that all of our college administrators would put quality above quantity!

As a lecturer, Dr. Parsons was superb. I know of no one who was more stimulating than he was. He made elementary chemistry alive and interesting. He used repeatedly as his examples important industrial problems, even though he dwelt entirely on the essentials.

As students, we were not interested in whether silver chloride was a white precipitate, a green gas or a blue liquid. I have seen silver chloride to my knowledge once since those days. Dr. Parsons explained the importance of precipitation, what it really meant, its effect on equilibrium and the control and operation of chemical processes. Even this lowly subject, silver chloride, became an interesting matter, to remember and ponder over.

Dr. Parsons does not remember today that he called his curriculum, "chemical engineering" rather than "chemistry." I do not know why, and neither does he; but I am willing to guess. Remember that New Hampshire College was primarily an engineering and agricultural college at that time, long before the days when it became a university. Remember that the word "engineering" was far better known than the word "chemistry." Remember also that Dr. Parsons was interested in having the product from his curriculum show up well in the market. I imagine that Dr. Parsons felt that his graduates were in a better position to receive offers for employment at that time if they had the title "chemical engineer" rather than "chemist." Incidentally, I do not remember any difficulty on the part of his graduates to obtain satisfactory offers. He saw to it that they

were all taken care of—and properly.

The Power of Persuasion

His real ability was shown repeatedly in his power of persuasion when it came to a man-to-man argument with his students. I know of no other professor who had such a power of persuasion. The arguments were not all confined to chemistry, but ran the gamut of human experience. Is it any wonder that such a professor should become the effective secretary and manager of the American Chemical Society?

History shows that during the twenty-two years Dr. Parsons was at New Hampshire College no serious argument ever occurred between the administration and the students.

The question is how does Charles L. Parsons convince people? First of all, Dr. Parsons never goes into an argument until he has all of the available facts at his finger tips, not in notes, not in reports, but in the front of his mind. He invariably uses these facts to develop his argument prior to the time of his exposition. The obvious result is that there is only one conclusion to which any normal thinking human being can possibly agree. It can be truthfully said that when Dr. Parsons has available the facts to justify his argument, there is very little doubt as to the outcome. It is only when the facts are nebulous or the antagonist produces new and contradictory facts that Dr. Parsons has difficulties.

Remember that although he is a fair fighter and always has been he is best when it is an individual argument, and he is not adverse to taking advantage and playing on his opponent's emotions. On the other hand, once presented with new and sound arguments based on previously unavailable facts, he quickly and gracefully gives in.

Looking back over the years, you, who are familiar with him and have argued with him, know that regardless of what has been said about his accomplishments for chemistry, he has really accomplished more for chemists. He stressed organization of chemical science, but at the same time he insisted that chemists were important people and thus helped make them so.

Nobody who knows Charles L. Parsons can say that his work in the American Chemical Society, even his work as a teacher and research man, did more for science and industry than it did for chemists and chemical engineers.

Researches

While Dr. Parsons was at the University of New Hampshire and later with the Bureau of Mines in Washington, a major portion of his time was spent on research. His publications were many and of high quality. While his work on beryllium is best known, the list of his publications shows that he worked in other fields. His contribution to science is unquestioned, yet I believe that his primary motive in undertaking these

researches was to stimulate interest among the young men with whom he came into contact. His primary aim was always to improve the status of the chemist.

It was Dr. Parsons who organized and founded the National Radium Institute and obtained funds for its operation. He conceived the idea of a cooperative agreement between the U. S. Bureau of Mines and two of his associates, Dr. James Douglas, mining engineer of New York city, and Dr. Howard Kelly, distinguished physician of Baltimore. Under his direction the National Radium Institute was able to concentrate 1,500 tons of carnotite ore from Colorado, to produce 30 tons of uranium oxide and finally to obtain eight and one-half grams of radium in the form of radium bromide.

It was this product, representing about a million dollars in value at that time, which was given to the Kelly Hospital in Baltimore and to the General Memorial Hospital in New York, with a very small amount left over for scientific investigations at the Bureau of Mines and at the Bureau of Standards. Think of the people who needed, and have been helped by, this eight and one-half grams of radium, and think of the added reputation chemists as a class acquired because of these results.

As early as 1916, Dr. Parsons, because of his work in fixed nitrogen and ammonia oxidation, was transferred temporarily to the War Department as its chief engineer and was sent by Secretary of War Baker to investigate the methods of fixing nitrogen and oxidizing ammonia to nitric acid in Norway, Sweden, England, France, and Italy. The record shows that the War Department prevented Dr. Parsons from entering Germany for this purpose, for obvious reasons. Upon his return to the United States, he made a detailed report of his findings and on them based his recommendations, which in turn were used by the Government in the design of their plants for the fixation of nitrogen. The record shows that he advised against the building of cyanamide plants except in emergency, and history shows that he was correct.

Work During World War I

Dr. Parsons originated, directed and put through a cooperative agreement between the Bureau of Mines, the Semet-Solvay Company and the Ordnance Department of the Army for developing methods of oxidizing ammonia to nitric acid. The resulting design was very satisfactory, and the resulting plant proved to be the lowest cost installation with the highest efficiency of any in the world at that time.

Dr Parsons, chemical engineer for the moment, was in charge of the engineering construction and operation of a large cyanide plant at Saltville, Virginia, during World War I.

This was the plant which fixed nitrogen by the cyanide method and produced sodium cyanide as a raw material for war gases. Even after the War, he made four trips to Europe in order to study nitrogen fixation so that we here in the United States could take advantage of the latest developments in France, England, Italy, and Germany.

The record is clear. Dr. Parsons made important contributions in the field of nitrogen fixation and ammonia oxidation, and certainly he was one of the founders of American production in these fields. The reputation of chemists was automatically increased in the public mind due to the success of his ideas and these achievements.

In World War I, it was in the Bureau of Mines where the original work on gas warfare was done and while Dr. Parsons was on its staff. It was he who made it possible to survey and locate American chemists who were needed by both the Army and the Navy. As a result of this work, a Committee of the War Service of Chemists was organized, and Dr. Parsons was chairman. Over 4,000 chemists were commissioned or enlisted as such in World War I due to his activities. Over 700 chemists were employed by the Bureau of Mines on Gas Warfare problems. The Chemical Warfare Service and the first Chemical Corps were the direct outgrowth of his work.

It was Dr. Parson's interest in chemists, in promoting their welfare, and in improving their status that caused him to promote this new branch of the Army.

Men Are More Important Than Science

There has never been a time in the last sixty years that Dr. Parsons has not had the primary thought in mind of increasing the professional status of chemists. To those who really know Dr. Parsons, his motive has always been clear. He may talk chemistry, but he thinks chemists. Men are far more important than science. The advancement of science is for the betterment of man, and for no other reason.

In the United States at the present time there is a false philosophy being promoted by those who consciously or unconsciously wish to break down our economic security, our democracy and our way of life. This philosophy states that, contrary to the laws of nature, men do not have to work for a living; they can obtain something for nothing, or at least more for less; their support will come from the Government. The result of this philosophy is that those of us who are creators and producers of wealth must give the results of our labor to the parasite and the drone. Charles L. Parsons for many years has been fighting this philosophy. So long as he lives, he will continue to do so.

It is fitting that The American Institute of Chemists, founded for the benefit of chemists, should at this time pay homage to Dr. Charles L. Parsons, the chemists' greatest living benefactor.

Army Program for Chemist-Officers

The Department of the Army announces a program designed to interest chemists who hold reserve commissions in the Army and who are professionally engaged in teaching, research, and development. Its objectives are to maintain the useful affiliation of chemists with the Organized Reserve Corps; provide peacetime Reserve assignments for these officers; furnish mobilization assignments to utilize their talents, and adequately prepare these officers for mobilization. Eighteen Research and Development Reserve groups have been organized. Twelve additional groups are in process of organization. Several have been formed in communities in which large universities, industrial research laboratories, or private research foundations are located. Provision is made to submit research projects of interest to chemists.

Reserve officers who are currently engaged in civilian research, college or university teaching, or industrial research or development are eligible to make application for assignment to an Organized Reserve Research and Development Group. A group may be organized where there are twenty or more qualified officer scientists who desire to participate in the program, which is under the general direction of the Research and Development Group, Logistics Division, General Staff, U. S. Army.

Inquiry about organization of a group or about assignment to a group already organized, should be made of the Unit Instructor, ORC, or of the Senior Army Instructor, ORC, in the locality in which the officer resides.

Ruger Appointed Assistant Manager

Dr. George F. Rugar, F.A.I.C., has been appointed assistant manager of the new Technical Service Division of Diamond Alkali Company, Cleveland, Ohio. Dr. Rugar joined the company in 1944, as product development manager in the Research and Development Department. Previously he had been associated for fifteen years with Hooker Electrochemical Company, Niagara Falls, New York.

Bogert Appointed Lecturer and Medalist

Dr. Marston Taylor Bogert, F.A.I.C., emeritus professor of organic chemistry, Columbia University, and senior scientific consultant and advisor for Evans Research and Development Corporation, New York, N. Y., has been appointed by the Board of Trustees of Columbia University as Charles Frederick Chandler Lecturer and Medalist for 1948.

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November Meeting

The 251st meeting of the National Council of THE AMERICAN INSTITUTE OF CHEMISTS was held November 10, 1948, at 6:00 p.m., at The Chemists' Club, New York, N. Y. Vice president Raymond E. Kirk presided. The following officers and councilors were present: M. L. Crossley, K. M. Herstein, R. Kienle, R. E. Kirk, H. W. Mackinney, J. M. McIlvain, C. P. Neidig, and L. Van Doren. V. F. Kimball was present.

The minutes of the previous meeting were approved.

The Secretary reported that the

membership of the INSTITUTE now totals 2,297, an all-time high. The deaths of William G. Beckers, F.A.I.C., and Gloria C. Kahn, A.A.I.C., were recorded with regret.

In the absence of the treasurer, the accountant's report was presented and accepted, subject to the treasurer's signature.

A letter from the secretary of the Niagara Chapter was referred to a committee consisting of the president, the secretary, and the treasurer.

The secretary read several replies from Congressmen to whom the resolution, passed at the previous meeting of the Council, had been sent. (See Resolution on page 494, November CHEMIST).

Dr. Kirk called attention to plans for increasing the membership. It was agreed that it would be desirable to bring in more younger members who would be benefitted by the INSTITUTE'S program. These younger potential members can best be approached through direct contact. It was decided to add chapter officers, not now members of the Membership Committee, to this committee.

The following amendment to the By Laws was presented for action:

ARTICLE XI

MEMBERSHIP

The following qualifications shall be used by the Committee on Qualifications as a guide in their consideration of membership applications. It should be understood that the essential qualification for membership in the Institute and the differentiation between grades of membership is professional maturity. The requirements stated below are not necessarily the sole index of this:

Sec. 1. A candidate for Fellow should have successfully completed four years of collegiate work in chemistry in an educational institution accredited by the Council, and in addition have completed ten years of progressive experience and responsibility in the practice of the profession, satisfactory to the Council.

Sec. 2. A candidate for Member should have successfully completed four years of collegiate work in chemistry in an educational institution accredited by the Council and in addition have had four years of progressive experience and responsibility in the practice of the profession, satisfactory to the Council.

Sec. 3. A candidate for Associate should have successfully completed four years of collegiate work in chemistry in an educational institution accredited by the Council.

Sec. 4. Postgraduate study is important and therefore each year of successfully completed postgraduate studies in chemistry, to a maximum of three years, may be considered as equivalent to two years of progressive experience in the qualifications for membership as Fellow or Member. Similarly, in exceptional cases, one year of undergraduate study may be considered as equivalent to two years of progressive experience in the qualifications for the different grades of membership.

Sec. 5. An Associate or Member after having completed the stated years of progressive experience in the practice of the profession may apply for the next higher grade of membership. The secretary shall consult the records and advise of the opportunity for such application.

This amendment was approved on first reading with the following changes: In Sec. 1, Sec. 2, and Sec. 3, the words "accredited by the Council" shall be changed to "acceptable to the Council;" and with a request

for clarification, by the special committee on constitutional changes, of the last sentence in Sec. 4.

According to Article VIII, Sec. 2, of the Constitution, amendments to the By Laws must be acted upon at two successive council meetings to be come effective. This amendment will be presented again at the December meeting of the Council.

The need for an up-to-date membership list was expressed. It was the consensus that an annual directory be issued to contain members' names and addresses only. The chairman was requested to so inform the Executive Committee, so that a decision may be made, if possible, at the next meeting of the Council.

The following new members were elected:

FELLOWS

Cassidy, Thomas A.
President, Wilmot and Cassidy, Inc., 108 Provost Street, Brooklyn, New York.

Goldberg, Rubin
Chemist, Old Town Ribbon and Carbon Co., 750 Pacific Street, Brooklyn 17, New York.

Hillyer, John Carpenter
Research Supervisor, Research Department, Phillips Petroleum Co., Bartlesville, Oklahoma.

Johnston, William Redmond
Director of Research, Standard Brands Inc., 810 Grand Concourse, New York 51, New York.

Le Conte, Joseph N.
Associate Professor of Chemistry, University of Georgia, Athens, Georgia.

Livingston, Ernest Mac Crackan
Assistant Professor, Brooklyn College, Brooklyn 10, New York.

Lockwood, William Howard
Research Chemist, E. I. duPont de Nemours and Co., Jackson Laboratory, Box 525, Wilmington 99, Delaware.

Lothrop, Warren Craig
Chemist, Arthur D. Little, Inc., 30 Memorial Drive, Cambridge 42, Mass.

Lyle, Aaron Kerr
Chief Chemical Engineer, Hartford-Empire Co., Drawer 1620, Hartford 2, Connecticut.

Marks, Henry Clay
Director of Chemical Research, Wallace and Tiernan Co., Inc., 11 Mill Street, Belleville, N. J.

Perry, James Whitney
Library Fellow, Chemistry Department, Massachusetts Institute of Technology, Room 4-469, Cambridge 39, Massachusetts.

Straub, Gilbert J.
Chief Chemist, Harrower Laboratory, Inc., 920 E. Broadway, Glendale 5, Cal.

Swann, Ralph Clay
Director of Research, Bon Ami Company, New York, New York.

MEMBERS

Boyle, Frederick Talbot
Process Engineer, Oakite Products, Inc., 34-35th Street, Brooklyn, New York.

Rifkin, Irving J.
Chemist-Partner, Brilco Labs., 1553 63rd Street, Brooklyn 19, New York.

Schweickert, Carl E.
Chemist Supervisor, Barrett Division, Allied Chemical and Dye Corp., Frankford, Pennsylvania.

Smith, Vernon E., Jr.
Research Chemist, Congoleum-Nairn, Inc., 195 Belgrove Drive, Kearny, New Jersey.

ASSOCIATES

Paul, Edward Franklin
Control Labs., Supervisor, Oakite products, Inc., 34-35th Street, Brooklyn, New York.

There being no further business, adjournment was taken.

Chemical Markets Symposium

The Chemical Markets Research Association and the Polytechnic Institute of Brooklyn will sponsor a joint meeting at the Hotel Biltmore, New York, N. Y., February 10, 1949, to present the chemical markets field to technically trained students in the New York Area.

According to Dr. H. S. Rogers, president of Polytechnic, chemical markets research is a field where there is a growing recognition of the need for trained men. College students who are majoring in chemistry and chemical engineering, faculty members, and representatives of industry will attend the all-day meeting. Lawrence H. Flett, president, A.I.C., and director of the New Products Division, National Aniline Division, Allied Chemical and Dye Corporation, is chairman of the joint committee for the meeting.

New Officers

The Association of Consulting Chemists and Chemical Engineers, Inc., 50 East 41st Street, New York 17, N. Y., announces the election of the following new officers: President, Percy E. Landolt, F.A.I.C.; Vice president, Henry L. Shuldener; Secretary, Michael F. Lauro; Treasurer, Albert Parsons Sachs, F.A.I.C.; Councilors, C. E. P. Jeffreys, Werner Kreidl, Helman Rosenthal, Raymond Stevens, F.A.I.C., and Abraham Taub, F.A.I.C.

For Your Library

Chemistry of the Carbohydrates

By William Ward Pigman and Rudolph Maximilian Goepp, Jr., Academic Press, Inc. 1948. *XVII*-748 *pp.* $10.80.

"Active work on the present book commenced in 1940 while the writer was associated with the National Bureau of Standards and was continued subsequently at the Corn Products Refining Company and the Institute of Paper Chemistry," writes Dr. Pigman in the preface. After his co-author's untimely death in 1946, Sol Soltzberg and John W. Green actively contributed to the book which is the result of experience, ingenuity and thoroughness. A detailed table of contents and one-hundred pages of indexes provide easy access to the rich content of the 648 large pages of text. The wealth of footnotes is placed where it belongs, at the foot of the pages, not at the end of the chapters.

The term carbohydrate is here taken in its broad meaning, which includes the polyols and the "sugar"—acids. Problems of constitution and nomenclature are discussed thoroughly. Great attention is given to reactions and derivatives of biochemical importance. Reference to recent extensive books on cellulose and starch is used wisely to avoid duplication of effort and to keep this volume convenient in size. The chemical technology of the carbohydrates is treated only briefly, and one might perhaps wish to see this extended in a future edition.

This is a carefully planned, completely documented, in short, a great and most welcome book.

—Dr. Eduard Farber F.A.I.C.

Newer Methods of Preparative Organic Chemistry

Interscience Publishers. 1948. 657 *pp.* 6½" *x* 9¼." $8.50.

This book contains selected subjects, translated and revised to date from monographs in *Die Chemie*: 1. Oxidation with Lead Tetraacetate and Periodic Acid. 2. Dehydrogenation with Sulfur, Selenium, and Platinum Metals. 3. Reactions with Raney Nickel Catalysts. 4. Hydrogenation with Copper Chromite Catalysts. 5. Oxidation and Reduction with Aluminium Alkoxides. 6. Biochemical Methods. 7. Aliphatic Substitution. 8. Organic Fluorine Compounds. 9. Catalysis with Boron Fluoride. 10. Hydrogen Fluoride. 11. Thiocyanation of Organic Compounds. 12. The Diene Synthesis. 13. Syntheses with Diazo Methane. Syntheses with Organo Lithium Compounds. This volume carries a wealth of information.

—Dr. John A. Steffens, F.A.I.C.

Varnished Cloths for Electrical Insulation

By H. W. Chatfield, Ph.D. and J. H. Wredden. Chemical Publishing Company, Inc., 1947. 233 *pp.* 5½" *x* 8½." $6.00.

This volume was originally published in England by technologists actively engaged in research upon flexible electrical insulation.

There is provided a comprehensive review of the several textiles most suitable for treatment, such as vegetable, animal, mineral, rayons and synthetic organic fibers.

Numerous types of impregnating varnishes are given with their methods of application to the cloth.

A rather comprehensive discussion of the several properties of the varnished cloths is made available in addition to approved methods of testing.

This volume is a valuable reference for those interested in this particular phase of the chemical industry.

—William Benjamin Canfield, F.A.I.C.

Reprinted

The article entitled, "Chemists' Contributions to Cosmetics, 1923-1948" by Signe Lidfeldt Sherman, F.A.I.C., which appeared in the May, 1948, issue of THE CHEMIST, has been reprinted in the November, 1948, issue of *Chemical Products and Chemical News*, of London, England.

Booklets

"Rare Books and Manuscripts. Early Books on Science and Medicine." Catalogue No. 132. Davis and Orioli, 56 Maddox Street, London, W. I. England.

"The Story of Soap." 36-page illustrated leaflet. Available from the Proctor and Gamble Company, Cincinnati 1, Ohio.

"New 60°Glossmeter. New 45°-0° Reflectometer." Eight-page booklet describing new portable instruments. Request it from Henry A. Gardner Laboratory, Inc., 4723 Elm Street, Bethesda 14, Md.

"The Properties and Applications of Ultramarine Blue." Calco Technical Bulletin No. 804. Request it from Advertising Department, Calco Chemical Division, American Cyanamid Company, Bound Brook, N. J.

"Facts and Figures on the Use of Pentek in Protective Coatings." Illustrated brochure on a technical grade of pentaerythritol. Available from Heyden Chemical Corporation, 393 Seventh Avenue, New York 1, New York.

"The Relation of Patents to the Antitrust Laws," by George E. Folk. National Association of Manufacturers, 14 West 49th Street, New York 20, N.Y.

Opportunities

Chemist and Writer

F.A.I.C., Several years industrial research experience with nationally known concerns; M. S. degree leading university; author of technical book and number of papers; biochemistry and nutrition; industrial toxicology; textiles; cosmetics; library and patent research; now available for special work or consultation. Please reply to box No. 124, THE CHEMIST.

Research Executive

Ph.D., F.A.I.C. Twenty years of research and development, direction and coordination from test tube through to plant scale production. Experience and accomplishments in the fields of textiles, textile auxiliaries, high polymers, pigments, paints. Publications. Patents. Can inspire associates to highest accomplishments. Gets along with production and sales departments. Present director of successful research and development laboratory. Seeking change to broaden scope of work. Age 45. Linguist. Prefer Atlantic or Pacific seaboard but willing to consider any location if offer attractive. Would consider association with consulting firm. Available for interview. Please reply to Box No. 122, THE CHEMIST.

Woman Chemist

Ph.D. Broad scientific background, F.A.I.C., available for literature research, translations, patent search. Please reply to Box 120, THE CHEMIST.

Chemistry Graduates Available

The Newark Colleges of Rutgers University, Newark N.J., will graduate thirty-two students of chemistry during the academic year 1948-1949. B. T. Summer, director of placement, will arrange interviews for interested business and professional organizations.

New York Chapter Meetings

December 9, 1948.

Informal Discussion Meeting. George Washington Hotel, New York, N. Y.

January 27, 1949.

Dinner Meeting. Downtown Athletic Club, New York, N. Y.

March 24, 1949.

Informal Discussion Meeting. George Washington Hotel, New York, N. Y.

May 18, 1949.

Dinner Meeting. Downtown Athletic Club

Analytical Symposium

The fourth annual Analytical Symposium under the chairmanship of D. P. Bartell, chief chemist, Allegheny Ludlum Steel Corporation, Brackenridge, Pa., sponsored by the Analytical Division of the Pittsburgh Section of the American Chemical Society, will be held at the Hotel William Penn on January 20-21, 1949. Chemists interested in analysis are invited to attend and papers on any phase of analyticaf chemistry will be welcomed.

Starting Salaries

John J. Schommer, director of placement at Illinois Institute of Technology, reports that June, 1948, graduates in engineering and science there, are drawing average starting salaries of $264.72. This is more than two and one-half times greater than the normal starting pay of engineering and science graduates ten years ago. In 1938 the average beginning wage was $100 a month.

Seymour Appointed Director

George F. Smith, president of Johnson and Johnson, announces that Raymond B. Seymour, F.A.I.C., has been appointed director of the Special Products Research Division of this firm.

Dr. Seymour recently resigned his position with the Industrial Research Institute of the University of Chattanooga where he had been director since its inauguration three years ago. He is the author of many publications and patents and has had considerable experience in plastics and textile research with Monsanto Chemical Company, Atlas Mineral Products Company and Goodyear Tire and Rubber Company.

Baker at University of Hawaii

Dr. Ross A. Baker, F.A.I.C., is on leave for the 1948-1949 academic year from the City College of New York, to serve as visiting professor at the University of Hawaii.

Steele Elected President

Frank J. Steele, M.A.I.C., chief pharmacist, Greenwich Hospital, Greenwich, Conn., has been elected president of the newly organized Connecticut Society of Hospital Pharmacists.

Hiler to Commonwealth Engineering

Malvern J. Hiler, F.A.I.C., is now vice president of The Commonwealth Engineering Company of Ohio, Dayton 3, Ohio. He was formerly director of research and development of Stepan Chemical Company, Chicago.

O'Neil with Masonite

T. M. O'Neil, Jr,. M.A.I.C., formerly sales engineer for Heyden Chemical Corporation, has been appointed manager of the newly organized chemical products division of Masonite Corporation. He will be stationed temporarily in the New York offices of the company, which manufactures wood fiber hardboards and the wood derived binders, Masonex and Masonoid.

Seniff to Baltimore & Ohio

R. W. Seniff, formerly engineer of tests, Gulf, Mobile and Ohio Railroad Company, Bloomington, Illinois, is now engineer of tests of The Baltimore & Ohio Railroad Company, Pratt and Arlington Streets, Baltimore, Maryland.

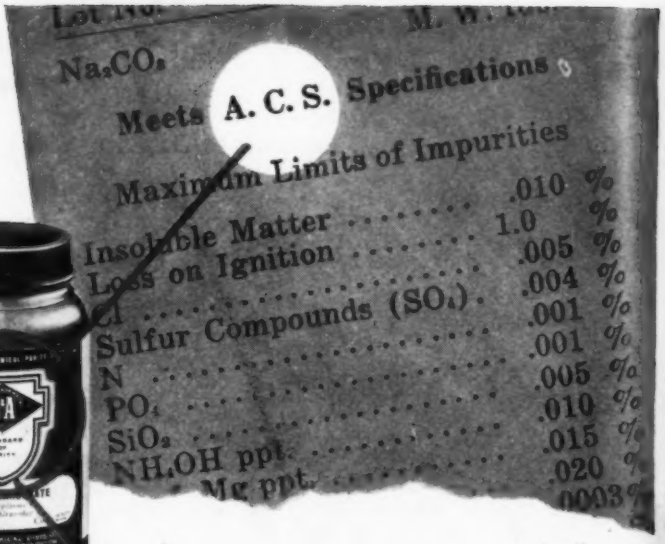
Condensates

Ed. F. Degering, F.A.I.C.

Cautionary Tale: Once upon a time there was a great philanthropist, Alfred Nobel, who invented dynamite, an explosive so terrifying in its potentialities that he hesitated to publish his findings lest someone misuse them. When he eventually did so, he took the precaution of stating clearly that it had the power of destroying men by the score. He hoped that the warmongers of that era would be so appalled by the possibilities of such a weapon that war might forever be banished from the earth.

A group of investigators in America have spent a great deal of time and trouble in delving into the problems of bacterial warfare. They have published their results in an erudite paper in which they even discuss what research will be necessary to render easier the task of destruction by this means. The object of publishing the paper was, apparently, to present all the available facts so that the warmongers would be so appalled by the possibilities of such a weapon that they not dare to use it.

—*Lancet*



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